

## Supplementary Material

**Supplementary material Table S1.** List of Real Time RT-PCR kits and reagents used by the TPS participants and number of data set for each type. (\*) highlights the recommended master mixes.

Real Time RT-PCR Kits		n° of data set
TaqMan® RNA-to-Ct™ 1-Step Kit (LifeTecnologies)*		14
iTaq One-Step Mastermix (Biorad)*		8
Luna® Universal Probe One-Step RT-qPCR Kit (NEB)		2
Ultraplex 1-Step Toughmix (Quantabio)		2
GoTaq Probe 1-Step RT-qPCR (Promega)		1
qScript™ XLT One-Step RT-qPCR ToughMix® (Quantabio)		1
AgPath ID one-step RT qPCR kit (Ambion)		1
qMAXSen™ One-Step Probe RT-qPCR Kit (CANVAX)		1
SS IV and Maxima Probe/ROX qPCR Master Mix (Thermo scientific)		1
CAPITAL™ qRT-PCR Probe Mix (Biotechrabbit)		1
TaqMan® Fast Virus 1-Step Master Mix (Applied Biosystem)		1
Reliance one-step Multiplex supermix (Biorad)		1

**Supplementary material Table S2.** Reproducibility values obtained for all the tests by each participant (considering valid data set). (-) = data set not provided.

	L1	L2	L4	L5	L6	L7	L10	L11	L12	L14	L15	L16	L17	L18	L19	L20
<b>ALK</b>	92%	92%	81%	90%	84%	84%	-	89%	-	92%	-	74%	78%	73%	92%	92%
<b>LOE</b>	77%	78%	81%	85%	83%	79%	-	83%	-	77%	-	80%	79%	70%	85%	83%
<b>ISH</b>	79%	76%	74%			66%	65%	73%			65%	70%	74%	68%	66%	78%
<b>M&amp;W</b>	81%	77%	76%			69%	66%	80%			66%	71%	77%	76%	71%	78%
<b>PAN</b>	88%	74%	82%			88%	-	85%	82%	-	82%	75%	75%	84%	80%	88%
	<b>L21</b>	<b>L22</b>	<b>L23</b>	<b>L24</b>	<b>L25</b>	<b>L26</b>	<b>L27</b>	<b>L28</b>	<b>L29</b>	<b>L30</b>	<b>L31</b>	<b>L32</b>	<b>L33</b>	<b>L34</b>	<b>L35</b>	
<b>ALK</b>	84%	80%	92%	-		92%	92%		92%	92%	92%	90%	-	-	-	
<b>LOE</b>	85%	77%	81%	-		83%	83%		-	77%	85%	85%	-	-	-	
<b>ISH</b>	74%	74%	62%	79%	65%	71%	63%			71%	75%	78%	76%		74%	
<b>M&amp;W</b>	81%	76%	71%	80%	66%	78%	65%			81%	75%	78%	77%	79%	81%	
<b>PAN</b>	75%	80%	83%	82%	71%	82%	69%	67%		88%		-	85%		-	

**Supplementary material Table S3.** List of TSP participants

### Partecipants

AGROINNOVA - University of Torino – UNITO, Italy

Agroscope, Switzerland

ANSES - Laboratoire de la Santé des Végétaux – ANSES - LSV-UBVO, France

Bactochem, Israel

BASF Vegetable Seeds (BVS) – BASF, The Netherlands

BIOREBA AG, Switzerland

Centre for Research Experimentation and Training in Agriculture (CRSFA) “Basile Caramia” – CRSFA, Italy

Centro attività vivaistiche – CAV, Italy

Fera Science Limited, UK

Finnish Food Authority / Plant analytics / D120, Finland

Hazera Seeds - Hazera Health lab, Israel

Institute of plant protection - DLR Rheinpfalz, Germany
Instituto Nacional de Investigaçāo Agrária, Plant Virology Laboratory – INIAV, Portugal
Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria – INIA, Spain
Israel Plant Protection and Inspection services Virology Laboratory – PPIS, Israel
Julius Kühn-Institut, Inst. für Epidemiologie und Pathogendiagnostik - JKI-EPV, Germany
Laboratorio SFR Lombardia c/o Fondazione Minoprio, Italy
Leibniz Institute – DSMZ, Germany
LOEWE Biochemica GmbH – LOEWE, Germany
Main Inspectorate of Plant Health and Seed Inspection Central Laboratory – GIORIn, Poland
Microlab, Israel
Naktuinbouw, The Netherlands
National Institute of Biology, Department of Biotechnology and Systems Biology – NIB, Slovenia
Netherlands Food and Consumer Product Safety Authority (NVWA) National Reference Centre (NRC) - NVWA – NRC, The Netherlands
Österreichische Agentur für Gesundheit und Ernährungssicherheit, Abteilung für molekularbiologische Diagnose von Pflanzenkrankheiten – AGES, Austria
Phytopathology Laboratory, Agro-Bio Tech, University of Liège – ULG, Belgium
Plant Health and Environment Laboratory – PHEL, New Zealand
Plant Health and Microbiology Laboratory- PHML, Estonia
Plant Health Diagnostic National Reference Laboratory – PHDL, Hungary
Research Institute for Agriculture, Fisheries and Food – ILVO, Belgium
Scientia Terrae vzw – STRI, Belgium
University of Palermo, Plant Virology Lab, Italy
Ústřední kontrolní a zkušební ústav zemědělský – Uzkuz, the Czech Republic
Wageningen Plant Research – WPR, The Netherlands